

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An image sensing apparatus comprising:
 - an image sensing device that senses an optical image of an object and converts the optical image into an image signal to be used for photographing;
 - a signal forming device that forms a signal used for focusing on the basis of the image signal obtained from said image sensing device; and
 - a control device that emits light once each vertical scanning period for assisting signal forming operation performed by said signal forming device and changes a light-emission time period in each vertical scanning period within and in correspondence accordance with a charge accumulation time of said image sensing device when said signal forming device forms the signal for focusing.
2. (Previously Presented) The image sensing apparatus according to claim 1, wherein the charge accumulation time of said image sensing means is an image sensing period for the image signal to be used for photographing.
3. (Original) The image sensing apparatus according to claim 1, wherein said control device emits the light in synchronization with image sensing operation of said image sensing device.

4. (Original) The image sensing apparatus according to claim 1, wherein said control device repeatedly emits the light at a period of image sensing operation of said image sensing device.

5. (Original) The image sensing apparatus according to claim 4, wherein said period corresponds to a vertical scanning period.

6. (Original) The image sensing apparatus according to claim 4, wherein said period corresponds to a period of a vertical synchronizing signal.

7. (Original) The image sensing apparatus according to claim 4, wherein said control device does not emit the light for a predetermined period at the period of the image sensing operation of said image sensing device.

8. (Original) The image sensing apparatus according to claim 4, wherein said control device does not emit the light at least for a predetermined period at the period of the image sensing operation of said image sensing device.

9. (Currently Amended) The image sensing apparatus according to claim 1, wherein said control device changes the light-emission time period of the light in accordance with the charge accumulation time of said image sensing device.

10. (Currently Amended) The image sensing apparatus according to claim 9, wherein said control device increases the light-emission time period of the light as the charge accumulation time of said image sensing device increases.

11. (Currently Amended) The image sensing apparatus according to claim 9, wherein said control device fixes the light-emission time period of the light to a predetermined period in a case where the charge accumulation time of said image sensing device exceeds a predetermined period.

12. (Previously Presented) The image sensing apparatus according to claim 1, wherein said control device changes light-emission intensity of the light in accordance with the charge accumulation time of said image sensing device.

13. (Currently Amended) An image sensing apparatus comprising:
an image sensing device that senses an optical image of an object and converts the optical image into an image signal to be used for photographing;
a signal forming device that forms a signal used for focusing on the basis of the image signal obtained from said image sensing device; and
a control device, for each vertical scanning period, that repeatedly emits light for assisting signal forming operation performed by said signal forming device ~~at a time of for a~~ light-emission time period that is within and in accordance with a charge accumulation operation time of said image sensing device ~~for~~ in each vertical scanning period.

14. (Previously Presented) The image sensing apparatus according to claim 13, wherein the charge accumulation time of said image sensing device is an image sensing period for the image signal to be used for photographing.

15. (Original) The image sensing apparatus according to claim 13, wherein said control device emits the light in synchronization with image sensing operation of said image sensing device.

16. (Original) The image sensing apparatus according to claim 13, wherein said control device repeatedly emits the light at a period of image sensing operation of said image sensing device corresponding to a vertical scanning period.

17. (Original) The image sensing apparatus according to claim 13, wherein said control device repeatedly emits the light at a period of image sensing operation of said image sensing device corresponding to a period of a vertical synchronizing signal.

18. (Original) The image sensing apparatus according to claim 13, wherein said control device does not emit the light for a predetermined period at the period of image sensing operation by said image sensing device.

19. (Original) The image sensing apparatus according to claim 13, wherein said control device does not emit the light at least for a predetermined period at the period of image sensing operation of said image sensing device.

20. (Previously Presented) The image sensing apparatus according to claim 13, wherein said control device changes emitting the light in correspondence with a charge accumulation time of said image sensing device when said signal forming device forms the signal for focusing.

21. (Currently Amended) The image sensing apparatus according to claim 20, wherein said control device changes the light-emission time period of the light in accordance with the charge accumulation time of said image sensing device.

22. (Currently Amended) The image sensing apparatus according to claim 21, wherein said control device increases the light-emission time period of the light as the charge accumulation time period of said image sensing device increases.

23. (Currently Amended) The image sensing apparatus according to claim 21, wherein said control device fixes the light-emission time period of the light to a predetermined period in a case where the charge accumulation time period of said image sensing device exceeds a predetermined period.

24. (Previously Presented) The image sensing apparatus according to claim 20, wherein said control device changes light-emission intensity of the light in accordance with the charge accumulation time of said image sensing device.

25. (Currently Amended) A control method of an image sensing apparatus having: an image sensing device that senses an optical image of an object and converts the optical image into an image signal to be used for photographing; and a signal forming device that forms a signal used for focusing on the basis of the image signal obtained from said image sensing device, said method comprising the steps of:

emitting light once each vertical scanning period for assisting signal forming operation performed by said signal forming device; and

changing a light-emission time period in each vertical scanning period within and in
[correspondence] accordance with a charge accumulation time of said image sensing device
when said signal forming device forms the signal for focusing.

26. (Currently Amended) A control method of an image sensing apparatus having: an image sensing device that senses an optical image of an object and converts the optical image into an image signal to be used for photographing; and a signal forming device that forms a signal used for focusing on the basis of the image signal obtained from said image sensing device, said method comprising the step of:

for each vertical scanning period, repeatedly emitting light for assisting signal forming operation performed by said signal forming device [at a period of] for a light-emission time period that is within and in accordance with a charge accumulation [operation] time of said
image sensing device [for] in each vertical scanning period.

27. (Currently Amended) A medium for providing a control program of an image sensing apparatus having: an image sensing device that senses an optical image of an object and

converts the optical image into an image signal to be used for photographing; and a signal forming device that forms a signal used for focusing on the basis of the image signal obtained from said image sensing device,

wherein said program emits a light once each vertical scanning period for assisting signal forming operation performed by said signal forming device and changes a light-emission time period in each vertical scanning period within and in [correspondence] accordance with a charge accumulation time of said image sensing device when said signal forming device forms the signal for focusing.

28. (Original) The medium according to claim 27, wherein the medium is a storage medium.

29. (Currently Amended) A medium for providing a control program of an image sensing apparatus having: an image sensing device that senses an optical image of an object and converts the optical image into an image signal to be used for photographing; and a signal forming device that forms a signal used for focusing on the basis of the image signal obtained from said image sensing device,

wherein, for each vertical scanning period, said program repeatedly emits a light for assisting signal forming operation performed by said signal forming device ~~at a period of image sensing operation for a light-emission time period that is within and in accordance with a charge accumulation time of said image sensing device for in~~ each vertical scanning period.

30. (Original) The medium according to claim 29, wherein the medium is a storage medium.

31. (Currently Amended) An image sensing apparatus capable of sensing an image using a fill-in light emission unit, comprising

an image sensing unit that obtains an image signal by photoelectric-converting an optical image of an object;

a determination unit that determines a light-emission time period of said fill-in light;

a controller that controls said fill-in light emission unit to emit light for the light-emission time period determined by said determination unit in synchronization with start of charge accumulation time; and

focus control unit that performs focus control on the basis of the image signal obtained from said image sensing unit,

wherein light is emitted for the light-emission time period once each vertical scanning period.